



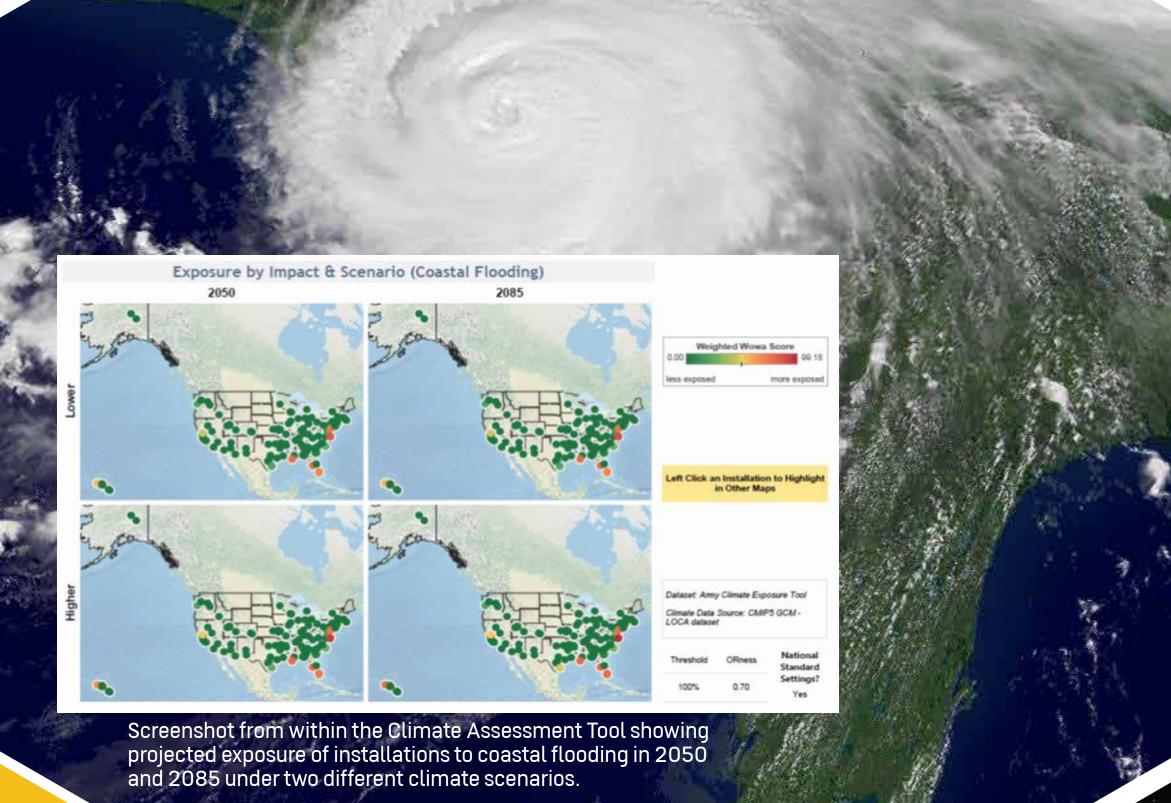
RESILENCE

ADAPTIVE SQUAD ARCHITECTURE

Adaptive Squad Architecture (ASA) applies a systems engineering approach to Soldier/Squad and centralizes power and processing. By managing the Soldier and Squad as a weapon system, each Soldier can equip differently to optimize mission performance over the full spectrum of multi-domain operations.



PROTECTION



ARMY CLIMATE ASSESSMENT TOOL

This web-based tool helps planners assess installation exposure to climate threats such as coastal and riverine flooding, drought, lesertification, wildfire, thawing permafrost, and extreme heat. (Launched at all U.S. installations in July 2020)

ARMY **BLACK START** EXERCISES

The Army conducts Black Start Exercises, also known as Energy Resilience Readiness Exercises, to evaluate mission critical projects. Black Start Exercises are resilience capability gaps.



ARMY

BLACK START

OPERATIONALENERGY

INVESTMENTS

Army investments of more than \$1.9B will modernize vehicles and weapons systems to maximize Soldier mobility and lethality to increase energy resilience and enable Army readiness.

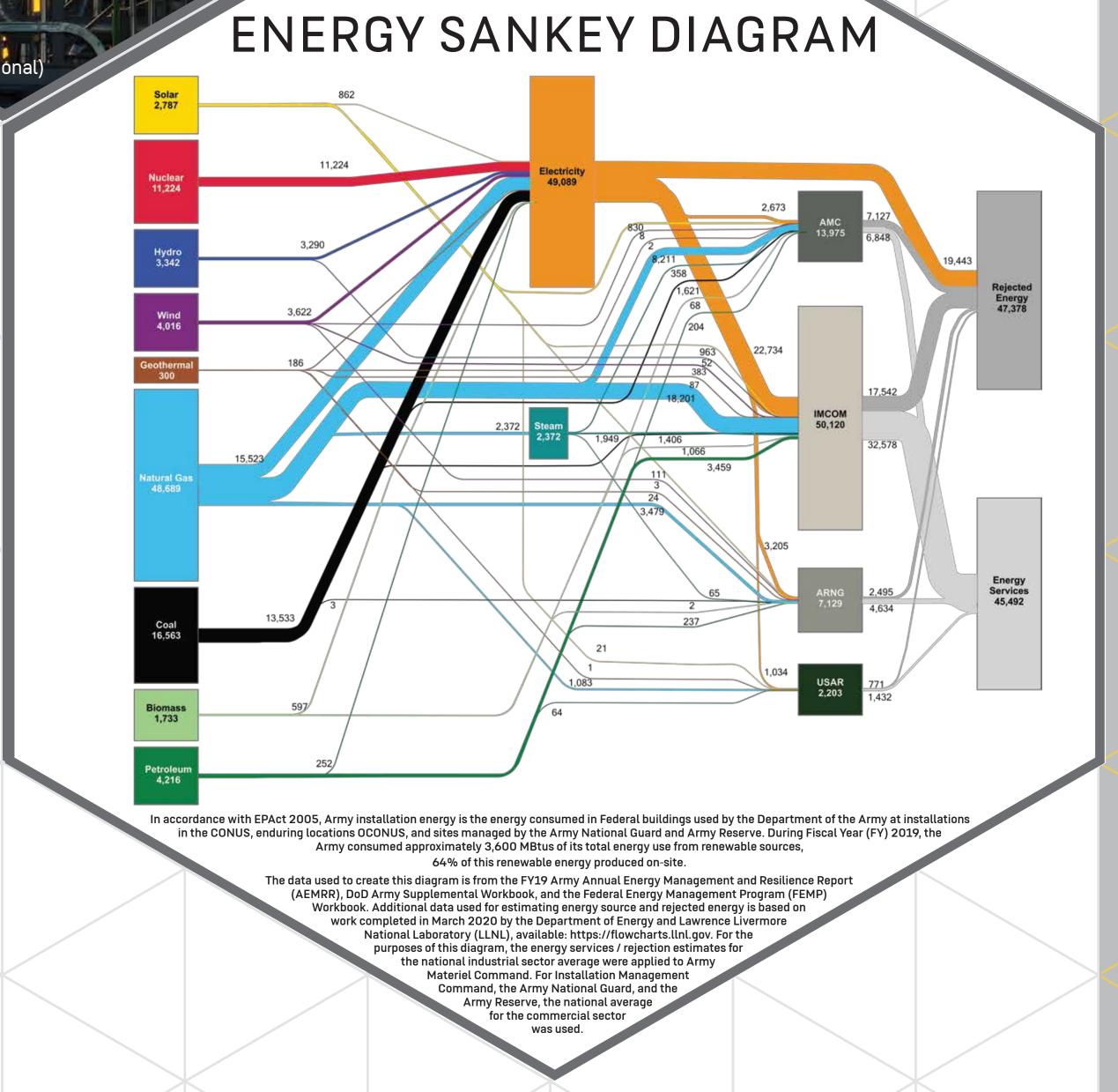
EFECIENCY

HYBRID ELECTRIC DRIVE (HED) technology in a Bradley platform to inform the development of future combat vehicles that will be more fuel-efficient, have greater range, and have abundant power for future weapon systems. Developing energy architectures such as the HED helps preserve operational overmatch for the modern Army force by increasing lethality and extending operational endurance.

COMBINED **HEAT AND** POWER (CHP) Fort Leonard Wood, Missouri will soon receive its first on-post power-generation operation, a Combined Heat and Power system. The implementation of CHP, commonly known as cogeneration, will increase energy efficiency and readiness on the installation. ARMY

INSTALLATION **ENERGY SANKEY** DIAGRAM This Sankey diagram is used to

> represent Army energy inputs, useful output, and wasted output. It is designed to help Army energy managers visualize the complex interrelationships involved in managing energy. This demonstrates the need for all of us to take action to use energy more efficiency.



INSTALLATION

ENERGYUSE INTENSITY

The Army reduced energy use intensity by 4% since FY15. Energy use intensity measures energy use per square foot of facilities.

AFFORDABILITY

PRIVATELY FUNDED **ENERGY PROJECT** FORT SILL, OK

In June 2020, the Army and Public Service Company of Oklahoma signed a 30 year lease for a proposed energy reliability and resilience project on Fort Sill, Oklahoma which would strengthen the local power grid and provide power to sustain Fort Sill's critical missions during a grid outage.

> REFORM 10 U.S.C § 2912

AVAILABILITY AND USE OF **ENERGY COST SAVINGS**

50% OF THE ENERGY COST SAVINGS WILL GO TO THE ARMY ENTERPRISE FOR ENERGY RESILIENCE INITIATIVES

To help reward installations that reduce energy consumption, the Army has 50% OF THE ENERGY COST

INSTALLATION

WERE REALIZED

(Artist Rendering Provided by Public Service Company of Oklahoma)

implemented 10 U.S.C § 2912, Availability and Use of Energy Cost Savings, through SAVINGS WILL GO TO THE the Resilient Energy Funding for Readiness and WHERE THE SAVINGS Modernization (REFoRM) initiative. REFoRM is an outstanding way of incentivizing Army installations to use less

REFORM

THIRD PARTY FINANCING

The Army is addressing affordability through Energy Saving Performance Contracts (ESPC) and Utility Energy Service Contracts. A \$40 million ESPC project at U.S. Army Garrison Kwajalein Atoll includes the design, implementation and long term operation of an island wide Solar PV/Battery Storage/Microgrid control system and LED lighting systems. The project will save the Garrison more than \$2.2 million each year over a performance period of 20 years.



PRIVATE SECTOR INVESTMENTS

As of FY19, Energy Savings Performance Contracts and Utility Energy Service Contracts attracted \$3B of alternative financing and OEI projects attracted \$1.7B of private investment.